S
614.71
H2m
1977
Oct

Montana State Library
3 0864 1006 5702 5

DEC 6 77

MONTANA DEPARTMENT OF HEALTH
AND ENVIRONMENTAL SCIENCES

Monthly Activities Report
of the Air Quality Bureau

October, 1977

STATE DOCUMENTS
MONTANA STATE LIBRARY
930 East Lyndale Avenue
Helena, Montana 59601

1. Highlights:

The design of the health study portion of MAPS (Montana Air Pollution Study) is beginning.

An addendum to the Colstrip environmental impact statement was sent out for public comment.

2. Ambient Air Quality Network:

A. Standards Exceeded

SO_2	Highest 1-hr	Highest 3-hr	Highest 24-hr
Mill Creek	0.27	0.15	0.10
Post Office	0.57	0.38	0.12
C-Hill	1.65	1.00	0.20
Hwy Jct.	1.32	0.39	0.24
CO	14.0	9.8	1.9
O_3	0.120 ppm	0.110 ppm	0.042 ppm

Ambient air quality standards from company stations near Anaconda smelter

State 1-hour	54
State 24-hour	8
Federal 24-hour	6
Federal 3-hour	4

B. Air Stagnation Advisories

October 11-12
October 14-18
October 20-24

C. Laboratory Status:

Total samples for month:	189
Total determinations for month:	371

3. Permits and Tax Credits

a. Construction Permits - Applied for:

C & C Plywood, Kalispell, wood-fired heating system
Meyer Construction, Richland County, hot mix asphalt plant
Hilde Construction, Deer Lodge Co., gravel crusher and hot mix plant
Hilde Construction, Powell Co., gravel crusher and hot mix plant
Hilde Construction, Deer Lodge Co., gravel crushing plant

3. Permits Applied for, Cont.

Peter Kiewit & Sons, Mineral Co., hot mix asphalt plant
ArnessAnderson Corp., Ashland, wood waste burner
Baltrusch Construction, Hill Co., screen unit, cone, trapfeeder, conveyors
Meyer Construction, Wibaux Co., asphalt batch plant
Baltrusch Construction, Gallatin Co., hot mix plant
Gus Albert, Valley Co., gravel crusher
Meyer Construction, Lewis & Clark Co., hot mix asphalt plant
Coram Lumber & Bldg. Supply, Coram, sawmill with tepee burner

Construction Permits - Approved:

Wickens Brothers, Hill Co., gravel crusher (two)
Wickens Brothers, Hill Co., hot mix asphalt plant
Meyer Construction, Richland Co., hot mix asphalt plant
Baltrusch Construction, Hill Co., screen unit, cone, trapfeeder, conveyors
Meyer Construction, Wibaux Co., asphalt batch plant
Baltrusch Construction, Gallatin Co., hot mix plant
Gus Albert, Valley Co., gravel crusher
Hilde Construction, Deer Lodge Co., gravel crusher and hot mix plant
Hilde Construction, Powell Co., gravel crusher and hot mix plant
Hilde Construction, Deer Lodge Co., gravel crushing plant
Cenex, So. of Laurel, spare reaction section portion for existing sulfur recovery unit
Central Montana Hospital, Lewistown, incinerator
Exxon, east of Billings, hot oil heater for tanks
Meyer Construction, Lewis & Clark Co., hot mix asphalt plant
Anaconda Co., Anaconda Reduction Department, Anaconda, expansion of acid plant, new stack installation

b. Operating Permits - None

c. Tax Credits: None

4. Variance Status:

Current

Anaconda Aluminum Company, Columbia Falls, F^- and particulate, expires 6/30/78, request for shutdown of foam scrubber being reviewed.

SO_2 variance for Anaconda Company was renewed at January 21 Board meeting and expired June 30, 1977. A request for renewal was received and a hearing set for December Board meeting.

New - None

5. Enforcement Actions:

a. Citations:

DHES, Helena, MT 771007-HK-1, incinerator in violation of Rule 16-2.14(1)-S1460 and S1480, Visible Air Contaminants and Odors

5. Enforcement Actions, Cont.

Evans Products Plywood, Missoula, MT, 771018-JB-1, cyclone on roof of plywood plant in violation of Rule 16-2.14(1)-S1460 (Visible Air Contaminants)

Evans Products Plywood, Missoula, MT 771018-JB-2; plywood sander in violation of Rule 16-2.14(1)-S1400 (permits)

b. Notice of Violation: None

c. Order for Corrective Action:

Zook Brothers Construction, Anaconda, modified original order, June 15, 1978

d. Court Actions - none

6. TP Burner and Open Burning:

TP Burner Inventory:

No. at start	39
New starts	0
Shutdowns	0
No. at end	39

Open Burning:

Kalispell	247	Sanders County	84
Cascade County	15	Yellowstone County	43
Lake County	69	Rest of State	641
Missoula County	53	Total	1202

7. Source Tests Performed:

a. Agency Tests - None

b. Non-agency Tests:

Boerner-Waldorf, Missoula, 15 particulate tests on recovery boiler, smelt tanks, lime kiln, slakers, and hogged fuel boiler.

Meyer Construction's hot mix plant at Wisdom, Montana. Plant was in non-compliance but parts of test report results were questionable, notably high gas volumes. Results are going to be rejected because of unusual turbulent conditions in stack which created artificially high readings.

8. Field Investigations:

Anaconda Aluminum, Columbia Falls, potline and foam scrubber, inspection; plant is meeting schedule.

8. Field Investigations, Cont.

Kiewit Sons, Helena, hot mix plant, complaint followed up, in compliance
Wickes Forest Industries, Townsend, tepee burner, complaint followup, in compliance
Gilman Construction, Butte, hot mix plant, observed source test
Montana Division of Forestry, north of Helena, slash burn, heavy smoke in valley, inadequate ventilation forecast

9. Complaints:

Gilman Construction, Butte, dust, investigation
Equity Supply, Kalispell, dust and chaff, investigation
Brand S Lumber, Livingston, smell and smoke, now in compliance
Wicks Corporation, Townsend, tepee burner smoke, investigation
Peter Kiewit Sons, Helena, hot mix plant emissions, investigation
Slash burning, Gallatin County, smoke, trying to correct problem
Champion Timberlands, Rattlesnake Creek, Helena, smoke, use of permit to be enforced
Gilman Excavating, Butte, dust and odor, source test scheduled
Baltrusch Construction, Havre, dust, investigation
City of Drummond, Drummond, open burning, investigation
Al Orner Ranch, Victor, open burning, county sanitarian will follow up
Ravalli County Fairgrounds, Hamilton, open burning, sanitarian will follow up
Slash burning, Gallatin Canyon, smoke, sheriff will halt all open burning (two complaints)
Unknown source, Bozeman, haze, investigation
Forest Service and Burlington Northern, Big Sky, smoke from slash fire, all burning stopped
Crude oil tank battery, Sidney, H_2S emissions, propane flare installed

10. Data Processing Services:

a. Ambient data summary - see attached

b. Emission Inventory Status

Data for statewide slash burning is arriving and being coded

MAPS Daily Emission Inventory for Missoula is in planning stage

c. Prevention of significant deterioration - no significant activity

d. Modeling

A diffusion model was run for the Cenex refinery evaluation of the proposed sulfur plant stack increase. The stack increase resulted in lower predicted ambient concentrations.

11. Environmental Impact Statements

EIS Addendum on Colstrip 3 & 4 construction permit was put out for 30-day comment period. The permit was recommended to be granted with six conditions which dealt primarily with coal storage and transportation problems, BACT and "offsets."

12. Status of Studies, Contracts, Reports:

ASARCO-Troy, approximately 50% complete, draft EIS sections due mid-November.
MAPS Project is proceeding as scheduled.
Butte TSP - initial public meeting to be held in November.
SouthEast Coal TSP - need to review Clean Air Act Amendments of 1977.
Missoula TSP - committees have filed recommendations.
Billings CO - public meeting planned for November to review problem of dependence on individual vehicles.
Billings TSP - public meeting planned.
Public Information Program - running well in Billings and Missoula, Butte is getting started.
Rockwell International has responded to contract proposal to evaluate Anaconda's in-stack instruments. Contract has not been finalized.

13. Schools and Training:

Smoke school was held October 4 and 5.

14. Public Hearings and Meetings:

a. Public Hearings Held- None

b. Meetings Attended:

Met with Riteway Asphalt, Helena, regarding Order to Take Corrective Action
Statewide staff meeting, Helena
Department of State Lands, Helena, ASARCO-Troy EIS.
Montana Chapter of American Statistical Association meeting, Helena
Met with architects regarding SHES building
Meeting on AAQ standards, Helena
Met with Highway Impact Evaluation Group, Helena
Meeting in Billings regarding public information program
Met with Gallatin Airshed, Bozeman, regarding open burning procedures
Met with Zook Brothers Construction, Helena, regarding Order to Take orrective Action
Met with Anaconda Company regarding SO_2 variance
Met with Department of State Lands personnel regarding final EIS for Westmoreland Resources coal mine expansion
Met with Shell Oil Company personnel regarding proposed natural gas treatment plant near Sidney
Met with representatives of American Colloid about proposed bentonite drying plant near Malta

c. Intra-staff meetings

AQB staff meeting, Helena
AQB staff meeting, regarding budget
AQB staff meeting, regarding MAPS Project

15. Public Information:

Rules	14
Clean Air Act	11
General information	7
Open burning rules	6

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

MONTHLY SUMMARY OF AIR QUALITY DATA

September, 1977

Pollutant: Misc Indicators Units:

AQCR	AREA / Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
	Fluoride Papers -	mg/sq cm/30 days					
144	Dahlbems Mt. Box Flathead Co.	0.590	1.610	1.610	0.753	9	
	Anaconda South Flathead Co.	2.870	27.48	27.48	6.329	9	
	Glacier Park #1 Glac. Nat. Pk.	0.310	0.640	0.640	0.321	9	
	Glacier Park #2 Glac Nat. Pk.	0.180	0.580	0.580	0.380	9	
	Glacier Park #9 Glac Nat. Pk.	0.360	0.560	0.560	0.386	9	
	Fluoride Plates -	mg/sq cm/30 days					
144	Anaconda South Flathead Co.	4.220	37.850	37.850	9.547	8	
	Trailer - NAAC Flathead Co.	1.200	2.000	2.000	1.289	8	
	Glacier Park #1 Glac Nat. Pk.	0.440	0.610	0.610	0.418	6	
	Glacier Park #2 Glac. Nat. Pk.	---	---	***	---		
	Glacier Park #9 Glac Nat Pk.	0.380	0.470	0.470	0.380	9	

*** data not available at time of report

Pollutant: Misc. Bubbler Data Units: ppm

AQCR	AREA / Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
	Sulfur Dioxide						
140	Lockwood School Billings	0.0847	0.0847	0.0847	0.0203	9	
	3/8 mi NE Coop Billings	---	---	***	---		
143	Scobey Daniels Co.	0.0	0.0	0.0	0.0	9	
	Ft Peck McCone Co.	0.0	0.0	0.0	0.0	9	
	Lame Deer Rosebud Co.	o.0	0.0	0.0	0.0	7	
	BN Site Colstrip	---	---	***	---		
	Nitrogen Dioxide						
143	Scobey Daniels Co.	0.0	0.0	0.0	0.0	9	
	Ft. Peck McCone Co.	0.0	0.0	0.0	0.0	9	
	Lame Deer Rosebud Co.	0.0	0.0	0.0	0.0	7	
	BN SIte Colstrip	---	---	***	---		

* Site no longer submitting data

Pollutant: Misc Indicators Units

AQCR	AREA / Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
	Dustfall - Tons/sq mi						
141	Mountain States Great Falls	10.04	48.15	48.15	22.17	9	
	Fire Sta. #1 Great Falls	6.93	23.75	25.93	15.49	8	
	Fairgrounds Great Falls	6.72	31.46	31.46	13.80	9	
	Deflation Rate -	mgOx/100 sq cm					
140	3/8 mi NE Coop Billings	---	---	***	---		
	East of Laurel Billings	---	---	***	---		
	HiHall Trucking Billings	---	---	***	---		
141	Stock Car Track Great Falls	0.203	0.607	0.607	0.242	8	
	Phillips Ref N 1 Great Falls	0.365	0.629	0.629	0.425	7	
	Phillips Ref E Great Falls	0.463	0.575	0.575	0.367	9	
142	Microwave E. Helena	---	---	***	---		
	HiWay Jct Anaconda	---	---	***	---		
	C-Hill Anaconda	---	---	***	---		

Pollutant: TSP Units: ug/cu meter

AQCR	AREA / Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
140	Morton-Decker Big Horn Co.	68	148	148	49.5	9	
	Warren Ranch Big Horn Co.	31	108	108	27.0	9	
	Lockwood School Billings	74	137	137	53.1	9	
	KGHL Billings	51	163	163	41.0	9	
	City Hall Billings	73	165	165	62.7	9	
	Grand Ave. Sch. Billings	58	155	155	54.3	9	
	Laurel Jr. High Laurel	48	150	150	41.8	9	
141	Hospital Roof Great Falls	62	225	225	44.6	9	
	Fire Sta. #1 Great Falls	110	869	869	70.1	9	
	10th Ave. So. Great Falls	176	176	176	87.0	4	1 excur Fed Std
142	HiWay Jct. Anaconda	56	121	250	44.9	9	
	McKinley Res. Granite Co.	111	217	217	56.1	9	
	Greeley School Butte	100	226	226	82.5	7	
	Gilman Constr. Butte	87	297	297	78.9	5	

STATE PUBLISHING CO.—A/T

MONTANA DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

MONTHLY SUMMARY OF AIR QUALITY DATA

September/1977

Pollutant: TSP Units: ug/cu meter

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
142	Atkins Res.						
	Walkerville	48	130	130	44.3	9	
	Richer Res.						
	Sil. Sow Co.	49	49	49	23.7	9	
	Tierney Res.						
	Sil. Sow Co.	41	64	64	35.2	9	
	Microwave						
	Jefferson Co.	35	103	103	27.0	9	
	212 E. Pacific						
	Lewis & Clk Co.	64	149	187	67.1	9	
	Kober Res.						
	Three Forks	137	309	309	92.8	3	
143	Ekalaka						
	Carter Co.	36	535	535	77.0	7	
	Littlefield Hill						
	Miles City	36	45	50	20.3	9	
	Glendive						
	Dawson Co.	22	102	102	25.6	9	
	Lame Deer						
	Rosebud Co.	18	243	243	28.0	6	
	Pt. Peck						
	McCone Co.	30	91	91	29.9	9	
	Broadus						
	Powder Riv. Co.	33	275	275	27.0	9	
	BN Site						
	Colstrip	26	93	93	35.6	9	
	Border Site						
	Scobey	65	107	107	35.5	7	

Pollutant: TSP Units: ug/cu meter

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
144	Anders Res.						
	Col Falls	106	260	260	104.9	9	
	Courthouse						
	Missoula	138	295	342	89.5	9	
	JB Field						
	Missoula Co.	180	180	214	52.0	9	
	Frenchtown						
	Missoula Co.	-----	-----	---*	-----	-----	-----
	Sherman Res.						
	Flathead Co.	68	226	226	83.9	9	
	Troy-Brown						
	Lincoln Co.	72	171	171	52.1	7	
	Troy-Sampson						
	Lincoln Co.	33	33	33	21.4	1	
	Hoerner Wald. #1						
	Missoula Co.	48	255	255	38.3	6	
	Hoerner Wald. #2						
	Missoula Co.	50	255	255	40.9	6	
	Hoerner Wald. #3						
	Missoula Co.	76	84	84	29.1	3	
	Courthouse Lawn						
	Missoula	132	132	132	61.7	1	
	Brown Res.						
	Libby	153	153	153	96.4	1	

* site no longer submitting data

Pollutant: Misc Cont. Data Units

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
	Carbon Monoxide						
140	27th & Montana						
	Billings	13.00	13.50	27.50	2.139	9	
141	10th Ave So.						
	Great Falls	12.00	12.00	12.00	2.048	3	
142	Alpine West						
	Butte	8.50	8.50	8.50	0.431	4	
144	Malfunction Jct.						
	Missoula	17.10	17.50	17.50	S.008	8	19 exc Nat. 8 hr.
	Hydrocarbons						
140	27th & Montana						
	Billings	6.90	6.90	10.20	2.334	9	
	Nitric Oxide						
143	BN Site						
	Colstrip	-----	-----	---**	-----	-----	-----
	Nitrogen Dioxide						
140	27th & Montana						
	Billings	0.12	0.18	0.18	0.029	8	
142	Alpine West						
	Butte	-----	-----	--**	-----	-----	-----
143	BN Site						
	Colstrip	-----	-----	---**	-----	-----	-----
	Oxides of Nitrogen						
143	BN Site						
	Colstrip	-----	-----	---**	-----	-----	-----

Pollutant: Misc Cont. Data Units:

AQCR	AREA Site Location	HIGH READING Current Month	Year-to-Date	Running Year	ARITHMETIC AVER. Year-to-Date	No. of Mons. of Data	Comments
	Ozone						
140	27th & Montana						
	Billings	0.05	0.08	0.08'	0.020	9	
142	Alpine West						62 exc Nat 1hr.
	Butte	0.11	0.15	0.15	01052	3	std.
	Sulfur Dioxide						
140	27th & Montana						
	Billings	0.05	0.20	0.20	0.002	9	
	Laurel Farm						
	Billings	0.28	0.63	0.74	0.050	9	2 exc MT 1 hr S
142	East Stack						
	E. HElena	0.22	0.44	0.44	0.010	9	
	Microwave						
	E. HElena	0.98	1.40	1.40	0.010	9	5exc MT 1 hr St
	C-Hill						1exc Nat 3 hr S
	Anaconda	2.86	3.51	3.51	0.024	9	6exc Nat 3 hr s
	HiWay Jct.						4 exc Nat 24hr
	Anaconda	1.00	1.46	1.58	0.025	9	3exc Nat 3hr st
	Mill Creek						3 exc MT 24 hr.
	Anaconda	0.10	0.88	1.36	0.017	9	
	Post Office						
	Anaconda	0.46	1.05	1.05	0.011	9	4exc MT 1 hr.
143	BN Site						
	Colstrip	-----	-----	---***	-----	-----	-----

** equipment malfunction - data questionable

*** data unavailable at time of report

STATE PUBLISHING CO.—4/77